

## ABSTRACT

An improved vortex mill for milling a substantially particulate solid material, which includes one or more working chambers. The mill also includes one or more working fluid inlets and one or more discharge ports. One or more  
5 working fluid inlets together with one or more discharge ports facilitate the vortex flow within the one or more working chambers. There are also one or more feed inlets to provide milling of the solid material, which is discharged from one or more discharge ports. In addition, there is apparatus for inducing  
10 controlled perturbations in the flow of the working fluid in the one or more working chambers, thereby to improve the milling of the solid material in the vortex flow.

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